

an outer polymeric barrier layer comprising polyester, said outer layer further comprising an oxide coating on the interior surface of said polyester layer;  
an inner polymeric sealant layer comprising a blend of low density polyethylene (LDPE) and ethylvinyl acetate (EVA); and  
an adhesive layer between said outer layer and said inner layer.

Claim 7 (original) The thermal device according to claim 6, wherein said oxide coating comprises aluminum oxide.

Claim 8 (original) The thermal device according to claim 6, wherein said thermochemical liquid composition comprises a supersaturated aqueous mixture comprising a chemical salt.

Claim 9 (original) The thermal device according to claim 8, wherein said thermochemical liquid composition comprises aqueous sodium acetate; aqueous sodium thiosulfate; or aqueous magnesium sulfate.

Claim 10 (original) The thermal device according to claim 6, wherein said adhesive layer comprises an ethyl acetate/aromatic polyisocyanate/methyl acetate blend.

### **REMARKS**

The Examiner has rejected Claims 1 through 10. Claims 1 through 10 are pending. The specification has been amended to update the status of a patent application

referred to. No amendments have been made to the claims.

**Rejection under 35 U.S.C. §103:**

Claims 1 through 10 have been rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Kitihara et al. U.S. Patent No. 5,261,241 in view of Maro et al. U.S. Patent No. 5,491,018 and further in view of Helmeg U.S. Patent No. 6,648,909. Applicants respectfully traverse this rejection for the following reasons.

The Examiner argues that Kitihara discloses a topically applied thermal device comprising an aluminum coating, but fails to disclose an oxide coating, inner sealant layer composed of LDPE and EVA blend. The examiner relies upon Maro for a teaching of a laminated packaging material with a polyester coated with silicone oxide. The Examiner further relies on Helmeg for a teaching of a hot/cold pack with a rupturable inner LDPE layer. The Examiner concludes that one of ordinary skill in the art would have modified Kitihara according to Maro and Helmeg to produce a device having a rupturable barrier. The Examiner further groups remaining features as “design choice”.

Based on the Examiner’s arguments presented in his reasons for rejection, it appears that the Examiner does not understand Applicants’ disclosed and claimed invention. In particular, the Examiner has attempted to combine a collection of teachings that he believes provide evidence motivation for one of ordinary skill in the art to arrive at a thermal device that has a “burstable/rupturable” feature (see page 3 of the Office Action, lines 13 and, again the last line).

Applicants’ disclosed and claimed invention, however, pertains to a thermal device comprising an “*activatable thermochemical liquid composition*” within the

flexible containment. There is no “burstable or rupturable” casing. In other words, the liquid composition *itself per se as presented* is activatable, which differs from a separated first solid or liquid ingredient and second liquid ingredient that require combination/mixture to be activated. This is discussed in the specification. A rupturable casing feature is, in fact, repugnant to Applicants’ invention and advantages. Thus, Helmeg does not provide teachings toward Applicants’ invention, but rather away from it.

Kitihara et al. relates to a refrigerant device (discussing two combinable ingredients to be mixed to produce the chemical reaction, e.g.). Kitihara does not appear to teach or suggest a *topically* applied (i.e., placed over the user’s skin surface) thermal device. Furthermore, it is not understood by Applicants the Examiner’s reference to a teaching of aluminum and how it allegedly relates to the claimed invention. The Examiner refers to a numerical feature 12, which is defined as a non-woven cloth in the detailed description section of Kitihara. In Example 11, an aluminum laminated film is mentioned. There are substantive physical and chemical difference between an aluminum sheet and an aluminum oxide coating to one of ordinary skill in the art. In any case, one is not scientifically or logically suggestive of the other.

Maro et al. is directed toward a packaging material. As packaging materials are not intended to be placed against the skin to effect thermal therapy, it is not understood why one of ordinary skill in the art would view a packaging material and have been lead to a topical thermal therapy device.

Given the above, the Examiner has not presented a set of references that, alone or in combination, fairly teach or suggest Applicants’ claimed invention. Nor can a

reasonable motivation be found within or between these references that would have lead one of ordinary skill in the art to arrive at Applicants' invention, as the gaps and lack of relationship between the technologies described in the references are substantial. These references are inadequate to support a proper rejection based on obviousness grounds.

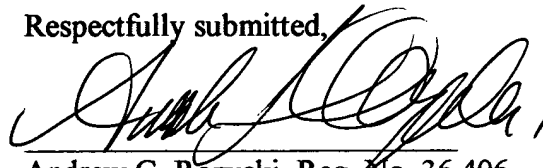
Given the above, the claimed invention is not unpatentable within the proper meaning of 35 U.S.C. §103. This rejection should, therefore, be withdrawn.

**Conclusion:**

In light of the above amendments and the accompanying remarks, it is believed that the application is now in condition for allowance, and prompt notification to that effect is earnestly solicited. The Examiner is invited to contact the undersigned to discuss the application on the merits if it is believed that such discussion would expedite the prosecution.

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Respectfully submitted,



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